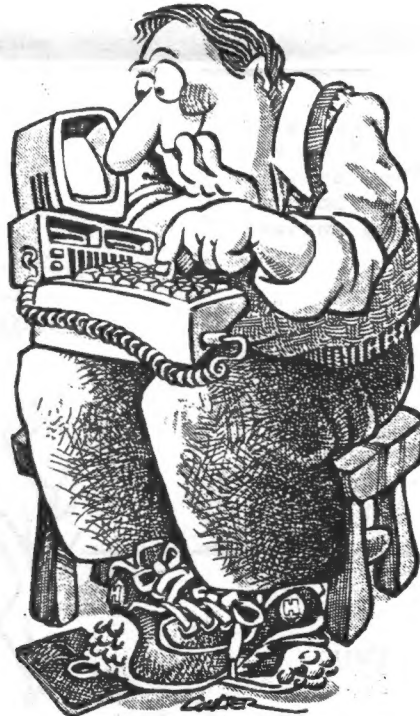


Vol 4 No.6
September, 1986

* * * **CONTENTS** * * *

| | |
|--------------------------|-------------------------|
| From The President.....1 | READ DATA.....6 |
| From the VP.....2 | MScript Hacking.....7 |
| From Sir Clive.....2 | AERCO Disc Kit!.....7 |
| TIMEX-->IBM!.....3 | Behind the Chips.....9 |
| Brewery.....4 | TC 2068 SCLD Pinout..10 |
| Musica de Mexico.....5 | What? Liability?.....11 |

AUTUMN BACK - TO - THE - COMPUTER ISSUE



The President's article would have appeared here but his wife had to go into the hospital unexpectedly (there'll be good news at the meeting, we hope) and the printer decided to go on vacation. You all get back to work now, Summer's over and it's time to pay attention to serious business. See you at the meeting!

SPECTRUM Spectacular Presented At August Meeting

The CATS membership was treated to a unique "SPECTRUM Spectacular" at the group's August meeting, courtesy of DAVID MICHAEL ROTHMAN of Gaithersburg, Maryland.

Mr. Rothman has been involved for some time in combining the technologies involved in the use of cameras and computers. The demonstration gave of the capabilities of the SPECTRUM was enhanced greatly by his ability to move easily between and within both environments.

Mr. Rothman had on display the largest collection of SPECTRUM equipment, peripherals and software undoubtedly ever seen in one place by any member of CATS. He explained that the first thing he did when receiving his SPECTRUM equipment was to remove a couple of things and start making modifications. One of these modifications involved in putting more precise color controls onto the main board so that the colors on the monitors could be "tweaked" to his satisfaction.

He demonstrated the use of the "Multi-Face One", a device sitting at the back of the console which can interface several microdrives, help compress memory, simplify program loading, and save screens instantly.

He discussed the AMX mapping system and the best of the joystick adapters. Great Britain continues to be game-crazy, he said, and was able to produce on request, from his great stock of microdrives, the British SPECTRUM version of just about any popular game going in this country, including ancient ones such as ZAXXON.

Mr. Rothman would like to return to CATS in the near future to give a live demonstration of using COMPUSERVE with the Timex/Sinclair machines, if we can manage to string a single telephone line into the New Carrollton Library's main meeting room.

Watch for the announcement of that meeting. You will not want to miss it! **HD**

Contributors:

| | |
|-------------------------|--|
| Tom Bent | John Kuhn, SMUG |
| Kai Cherry | L.I.S.T. |
| (getting an Amiga, eh?) | R.A. Samuelson, <u>Washington Post</u> |
| Hank Dickson | Roald Schrack |
| Mark Fisher | (so what are the rest of you doing?) |
| Sarah Fisher | SMUG |
| Hampton Roads TSUG | Alejandro Vasquez, G.U.T.S. de Mexico |

Deadlines

| | | |
|--------------|--------------|------------------|
| Newsletter | Meeting Date | CATS 2 September |
| September 26 | September 13 | |
| October 24 | October 11 | |
| | November 8 | |

Vernon Smith writes of his intense frustration with Foundation Systems/Ramex. Tom Bent says that Ramex is going through bankruptcy right now, and Vernon may have to wait a while for his money. MF

VERNON R. SMITH • 8123 RICHARDSON DRIVE • FAIRFAX VIRGINIA 22032

7039 870-1030

July 8, 1986

Mark Fisher, Editor
C.A.T.S. Newsletter
Capitol Area Times/Sinclair Users Group
P.O. Box 725
Bladensburg, MD 20710

Dear Mark:

As a fellow C.A.T.S. member, I wanted to inform you of the problems that I have had with Foundation Systems, so that you can inform our membership. I feel that the newsletter is the best medium to do so, since it reaches those that aren't able to attend the meetings.

I first became aware of Foundation Systems when they advertised the DL with ICE for \$299. I placed an order and paid for it with my credit card. On March 10, I called them and cancelled the order. Despite my cancellation, they debited my MasterCard account on March 14 for \$211. On March 14 they apparently didn't even have any DLs in stock and couldn't have shipped one to me because they sent me a letter, postmarked April 1, saying that shipments had been delayed due to the sale of Sinclair. I ignored this letter since I was certain that my order had been cancelled. On May 7, I received my MasterCard statement and found a posting for Ramex International, Utica, Michigan. On May 8, while trying to find out who Ramex International was, I received the DL shipment. I immediately called Foundation Systems and told them of the mix up and informed them that I was returning the items to them. I shipped them back via UPS on May 9 at a cost of \$5.61. On May 1, I sent them my UPS receipt and asked for the refund to include the shipping costs. When my June MasterCard statement arrived without the Ramex credit, I called Foundation Systems to find out what was wrong. I was informed that there must have been some hold up in the processing of the credit, when in a trillity they had never issued one, and they knew it. As of June 30, I still had not received a credit, so between then and July 1, I made three more phone calls. Each time I reached an answering machine to which I gave my name and number and a brief description of my problem. The assurance that "they would get back to me as soon as possible" have not taken place. My last call was on July 6. At that time I notified them that if I did not hear from them by 5:00 P.M. July 7, I would be going public by all Sinclair publications, users groups, newsletters, bulletin boards, and governmental agencies about their blatantly dishonest business practices. They haven't called me. I have to assume that they do not care if this is published.

They owe me \$316.61 and are costing me more each day in credit card interest and long distance phone charges. From their actions, it appears like they have no intention of making a timely refund, especially when they are using my money.

Given their sharp practices and cavalier treatment of customers, I would advise against doing ANY business with them. The Sinclair community is small, yet there are dealers that are willing to support us; therefore, we should support those that are fair to us. The others should fail. Foundation Systems has not earned the right to that support.

I certainly hope that you inform the members of this problem so they won't fall into the same trap as I did. There is no reason for anyone else having to go through the same hassle. I know that we exchange newsletters with other groups, so this information will get wide dissemination; however, in the interest of timeliness, I have taken the liberty of sending photocopies to the users groups and publications listed below.

Yours truly,

Vernon R. Smith

Vernon R. Smith



LETTERS Electronics/August 7, 1986

Sinclair is still kicking

To the editor: Your issue of June 23 contains a serious error. It is not true that Amstrad Consumer Electronics plc bought Sinclair Research Ltd. [*Electronics*, June 23, 1986 p. 53]. They simply bought the existing computer range and the right to the use of the brand name. They have no right to any future computer products or any other product categories. A portable computer is under development, but by my team and for my company. We plan to launch it in the first half of 1987.

Sir Clive Sinclair
Chairman
Sinclair Research Ltd.
London

TIMEX-PC COMMUNICATIONS

In addition to my 2048 I have acquired an IBM clone (an AT&T 6300). I have been trying to get the two to talk to each other for awhile and have finally succeeded, using the 2050 modem on the 2068 and a "Hayes compatible" modem on the 6300. A Volksmodem does not seem to respond to the 2050. I have not tried to use the phone lines, but the procedure outlined below would presumably work. Instead of using the phone lines, since the two computers are in the same room I have directly connected the outputs of the two modems to each other.

To get the modems to connect I have used "direct orders" to the modems. First, you must make the two modems have the same communications parameters. I have used 8 bits, No parity, 1 stop bit. You must set the PC clone modem to 300 baud. You must find out how to send command instructions to the PC clone modem. All modem commands start with AT and then have some additional letters and/or numbers.

Communications software usually do this for you and are not clear on how you can do it yourself. I found out how to do it with a popular "shareware" package called Procomm. It is available on many bulletin boards and can be obtained from the Capital PC users group on their disk #55. My way of getting commands to the modem using Procomm was to enter the dialing directory and enter an M as if you were going to manually dial a number. Now type an x (or anything), CR, and the program will try to dial it. It will fail and leave you in a mode that allows commands to be sent directly to the modem. You can test that you are in the proper mode by typing: ATS7? . This will ask the modem how many seconds it is set to wait for a carrier before hanging up. The modem should answer back with some number (usually between 30 and 250). You are now ready at the PC end.

Now go to the 2068, load MTERM, and set up the communications parameters (using System Setup). Go to the terminal mode and then press shift-enter to get the modem command. Enter M, and CR to initiate the modem connection. Quickly go to the PC computer (still waiting in the command mode) and type AT D (for originate). If you have a call progress speaker on your PC modem you will now

hear the 2068 trying to make connections. You should be successful and get a CONNECT message on both computers, and the little red LED on the 2050 should light up.

Typing on either computer should now show up on the other. You may have to set the PC modem to include the line feed when it gets a carriage return, and you may also have to set the PC modem to echo input on the screen from its keyboard. These are both normal options.

To terminate the connection on the 2068, press shift-enter and the H, and CR. I leave further explorations to you.

Roald A. Schrack

Has anyone tried this yet? 2

User Group Pow-Now -

Representatives of all the T/S users groups in attendance at the fest met to discuss national coordination strategies.

Represented were users groups from Detroit, Washington D.C., Cleveland (2 groups), Cincinnati, Dayton, Long Island, Pittsburg, Portsmouth (Ohio), Omaha, Louisville, Philadelphia, and, of course, Milwaukee. Several strategies emerged as to how to coordinate T/S users groups on a national level.

One strategy is a public domain program exchange at the user group level. Another strategy is a predetermined conference time on Comuserve. Tentatively, the conference will occur on the first Sunday of every month at 10 P.M. eastern standard time. 60 PCS-54 to access the Computer Club SIG, and thus the conference. When leaving online messages, all national coordinating activities should be addressed with the subject T/S NET. Lucy Gordon, of the Cincinnati T/S Users Group, has offered to do some coordinating.

SMUG Bytes

May 1986

BREWERY

Hello! I've heard that many people liked my MicroDrive article (Thanks!) so I decided to write another one. This is a game for you MicroDrive owners.

It's called BREWERY and the object of the game is to get as many points as possible by letting the bottles move across the levels without dropping. Huh??

You control a claw connected to an elevator device. You move your claw up & down with a joystick in the left port.

The game starts with you at the bottom of the screen. Then, on one of the three levels (Top, Middle, Bottom) a bottle starts to move across. You must simply move your claw to the corresponding falling level to keep the bottle from falling through the opening.

But what if it falls? You can catch it with your claw but the higher level you're on, the shorter the distance the bottles can fall before you lose a life (claw).

For instance, if you're on skill level:

- 1- Bottle falls 6 spaces
- 2- Bottle falls 5 spaces
- 3- Bottle falls 4 spaces
- 4- Bottle falls 3 spaces, etc.

You lose a life if a bottle falls too far, or if a bottle hits any part of the claw device that you use. You have 3 lives at the beginning of the game. They are displayed in the upper left-hand corner of the screen.

There are bonus points too. If you can let 32 bottles go all the way across the screen, you get bonus points & move up a level. Each bottle that is counted toward your bonus points is printed across the screen.

After your game is over, the program will load the "Hall of Fame" list. If you qualify you can enter your name onto the list. The list will then SAVE the new list automatically.

To type in the program:

First of all, format a 10 ft. MicroWafer.

Next, type in the program and SAVE it as File #1.

Now, type in this short program, without a line number:

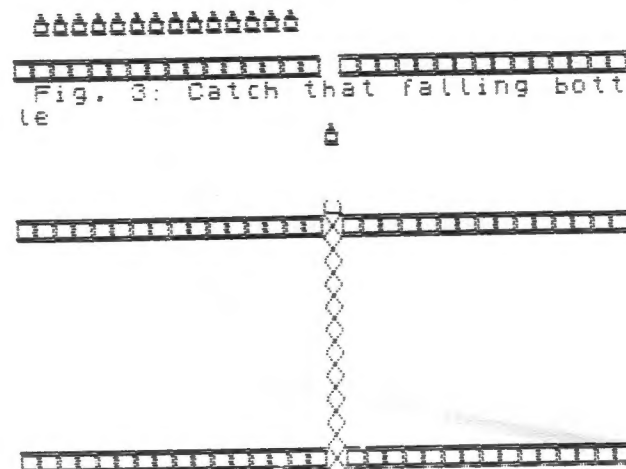
```
DIM F(6): DIM F$(6,3): FOR
n=1 TO 5: LET F(n)=0: LET F$(n)=
"T/5": NEXT n: SAVE "02,FAME"
DATA F(): SAVE "02,FAME2" DATA
F()
```

This sets up the arrays for the "Hall of Fame" list.

Th-Th-Th-Thats all folks! But if you have any questions or comments that the pictures that follow can't explain, call me!! I don't mind at all. Enjoy the game!

Kai Cherry (301) 466-4770

(XX) LEVEL 1 1UP 24100



```
1 DIM F(6): DIM F$(6,3): LET
L=1
2 RANDOMIZE
3 PAPER 7: INK 1: BORDER 3: C
LS : LET K=0
4 LET L=3: LET SK=1 : CLS : L
ET K=0
5 LET SC=0
7 LET U=0
10 FOR N=0 TO 7: READ A: POKE
USR "A"+N,A: NEXT N
11 FOR N=0 TO 7: READ A: POKE
USR "B"+N,A: NEXT N
12 FOR N=0 TO 7: READ A: POKE
USR "C"+N,A: NEXT N
13 FOR N=0 TO 7: READ A: POKE
USR "D"+N,A: NEXT N
14 GO TO 50
20 IF STICK (1,1)=0 THEN RETUR
N
21 IF STICK (1,1)=1 THEN PRINT
AT X,Y:"A": LET X=X-1
22 IF STICK (1,1)=2 THEN PRINT
AT X,Y:" ": LET X=X+1
23 IF X>21 THEN LET X=21
24 IF X<4 THEN LET X=4
25 PRINT AT X,Y:"C"
26 RETURN
50 PRINT AT 0,0: INK 3:"CCC";A
T 21,0: PAPER 5:"XXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
4,0:"XXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXX";AT 4,16: PAPER 7:" ";AT
11,16:" ";AT 21,16:" "
51 LET X=21: LET Y=16
52 PRINT AT X,Y:"C"
53 LET K=0: LET S=INT (RND*3)+
1: IF U>30 THEN GO TO 900
54 IF S=1 THEN LET D=3
55 IF S=2 THEN LET D=10
56 IF S=3 THEN LET D=20
```

Música y tu T/S 2068

por ALEJANDRO VASQUEZ

```

57 FOR N=1 TO 15: PRINT AT D,N
; INK 2;"A": IF SCREEN# (D,N+2)
<>" " THEN GO TO 800
58 BEEP .1,1: GO SUB 20: NEXT
N
59 IF X<>D+1 THEN GO TO 500
60 GO SUB 5000: PRINT AT 0,11;
INK 1;"LEVEL";SK: LET U=U+1: P
RINT AT D,16;" ": LET SC=SC+(100
#S): PRINT AT 0,20;"1UP";SC: PR
INT AT 2,U)"A": GO TO 52
500 PRINT AT D,16;" "
501 FOR N=D TO 20: BEEP .01,N
502 GO SUB 20
503 PRINT AT N,16; INK 2;"A" AT
N-1,16;" "
504 IF SCREEN# (N+1,16)<>" " TH
EN LET SC=SC+100: PRINT AT 0,20;
"1UP";SC: PRINT AT X-1,Y;" " G
O TO 53
505 LET K=K+1: IF K>8-3K THEN P
RINT AT N,16;" " GO TO 800:
506 NEXT N: LET S=S+100-K: LET
K=0: GO TO 53
500 PRINT AT D,16;" ": FOR N=0
TO 7: PRINT AT X,Y; INK N;"0": B
EEP .2,N: NEXT N: BEEP .5,0: LET
L=L-1: PRINT AT 0,2-L;"0": IF L
<>0 THEN GO TO 53
501 CLS: PRINT AT 11,10; INK 8
; PAPER 1: FLASH 1;"GAME OVER":
INK 7: LOAD "@FAME" DATA F(): LO
AD "@FAME2" DATA F#(): GO SUB 10
00: PRINT AT 0,5;"PRESS " FLASH
1;"FIRE"; FLASH 0;" TO PLAY AGA
IN"
502 IF STICK (2,1)=0 THEN GO TO
502
503 CLS: RUN:
500 PRINT AT 2,12; INK 2; PAPER
7; FLASH 1;"BONUS!"; FOR N=31 T
O 0 STEP -1: PRINT AT 2,N;" ": B
EEP .01,53: LET SC=SC+100: PRINT
AT 0,20;"1UP";SC: NEXT N: LET
U=0: LET SK=SK+1: PRINT AT 0,11;
"LEVEL";SK: GO TO 53
1000 INK 0: CLS: PRINT AT 0,0;"
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AT 21,0; AAAAAAAAAAAAAAAAAAAAAA
AAAAAAAAAAAA": FOR N=1 TO 20: PRI
NT AT N,0;"A" AT N,31;"A": NEXT
N: PRINT AT 2,9; FLASH 1;"MUSI
C BREWERS"
1001 FOR N=1 TO 5: PRINT AT N+3
,4,N;" "; F#(N) AT N+3,20; F(N): N
EXT N
1002 FOR N=1 TO 5: LET G=F(N): I
F F(N)<SC THEN PRINT AT N+3,2;">
"; AT N+3,20; INVERSE 1; SC: LET F
(N)=SC: LET F(N+1)=0: LET F#(N+1
)=F#(N): GO TO 2000
1003 NEXT N
1004 RETURN
2000 PRINT AT 17,14;"---<=INITIA
LS"
2001 FOR G=1 TO 3:
2002 PAUSE 0: BEEP .01,55: IF CO
DE INKEY#<32 THEN GO TO 2002
2003 PRINT AT 17,13+G; INKEY#: LE
T F#(N,G)=INKEY#: NEXT G
2004 SAVE "@2,FAME" DATA F(): SA
VE "@3,FAME2" DATA F#(): CLS: R
ETURN
5000 FOR N=15 TO 30: PAUSE 4: PR
INT AT D,N;"A": NEXT N: PRINT A
T 0,31;" ": RETURN
9000 DATA 24,24,60,126,66,66,126
,126,129,66,36,24,24,36,66,129
9001 DATA 0,0,0,66,129,129,129,2
55,255,255,129,129,129,129,255,2
55

```



Cuando hayas terminado pulsa
BREAK para parar el programa y
para escuchar tu interpretación
solo usa RUN 9000. ¡Listo!
¡La computadora tocará tu
melodía!
Si deseas guardar tu melodía
usa:
SAVE "un nombre" CODE 6E4 5E3
Para usar este programa
dentro de otro programa para
"musicalizarlo", efectua los
siguientes pasos
-Teclea RUN y toca la musica
que desees.
-Salva los bytes aparte
-Borra las líneas de la 5 a la
41 y teclea: 9055 RETURN
-Escribe tu programa sin usar
las líneas de la 50 a la 121
ni de la 9000 a la 9055
y ya está. Cada vez que desees
que se toque la melodía usa:
GO SUB 9000
y recuerda que tu programa debe
usar un CLEAR 59999 y cargar los
bytes antes de comenzar a correr
normalmente.

```

1 REM MUSICAL!
por A. Vasquez
5 CLEAR 59999: LET i=60000
10 LET a=CODE INKEYS: POKE i,a
: LET i=i+1: IF a=0 THEN GO TO 1
20 RESTORE a
30 READ b,c
40 SOUND 0,b;1,c;7,62;8,16;12,
13;13,0
41 GO TO 10
50 DATA 142,1
51 DATA 98,1
52 DATA 0,0
53 DATA 42,1
54 DATA 9,1
55 DATA 237,1
56 DATA 0,0
57 DATA 199,0
58 DATA 177,0
101 DATA 78,1
105 DATA 211,0
111 DATA 188,0
112 DATA 167,0
113 DATA 165,1
114 DATA 60,1
116 DATA 25,1
117 DATA 223,0
119 DATA 119,1
121 DATA 251,0
9000 PRINT "HOLA: Vamos a cantar
:"
9001 FOR i=6E4 TO 65E3: LET a=PE
EK i
9005 IF a=0 THEN GO TO 9050
9010 RESTORE a: READ b,c
9040 SOUND 0,b;1,c;7,62;8,16;12,
13;13,0
9050 NEXT i
9060 STOP

```

This article covers some of the same ground treated in Ken Brown's BASIC translation piece in the #5 COMPUTERIST. By comparing the two, you may learn more than you would from either one separately.

In most texts introducing BASIC, the combination of the commands READ and DATA is one of the first terms introduced. It is also one of the most complex. Unfortunately, our computer can't use it; if we want to enter a program that uses READ/DATA, we must use a combination of commands that we do have. 'OK' you say, 'what combination of commands do I use?'

It ain't that simple. In the rest of this article, I will discuss some of the variety of ways READ/DATA is used, and some of the strategies we can use to meet the same requirements. By the end of the piece, I hope you will be able to recognize the general classes of data transfers that READ/DATA is used for, and will be able to generate T/S BASIC routines to do the same job.

READ/DATA is, as mentioned, a complex command, and it is used in a variety of ways. A single BASIC subroutine that can mimic all the potential of the original would be extremely cumbersome. In fact, since we are using programs from a variety of sources, our job is even bigger--each variety of BASIC has its own limitations on the READ/DATA function. The following applications are listed in rough order of complexity.

Repetitive calculations with a sequence of values are the computer's forte, and that's where READ & DATA are meant to shine. EX:

```
10 READ X
20 PRINT X
30 GOTO 10
40 DATA 12,14,6,30,3,40
50 END
```

Let's follow what an Apple would do: first, it would encounter the READ X. To perform this command, it would then scan the program listing, starting from the first, searching

for a DATA statement. Once found, it would take the first value after that, and assign it to the variable named in the READ line, leaving a flag behind to mark it's place if a second READ is found. PRINT X is performed next, using the value in the variables file, not the DATA line. The DATA line itself is treated as a REM.

In standard BASIC, this is not an endless loop; for each READ statement, a flag is advanced along the DATA line; when the end of the line is reached, a test is made for a second DATA line; failing that, the program will terminate with an 'OUT OF DATA' error message.

There are two strategies to use in duplicating the above program. The first is simpler, but requires each data element to have a fixed length: the second allows variable length elements, but takes twice as much code.

```
Version 1:
10 LET D$="121406300340"
20 FOR N=1 TO LEN D$ STEP 2
30 LET X=VAL D$(N TO N+1)
40 PRINT X
50 NEXT N
60 STOP
```

Follow this through the cycle:

1. D\$ is established, with the value "121406300340"
2. FOR-NEXT loop is set up to match D\$: if D\$ was created with an INPUT statement, the loop would adjust to the length given.
3. STEP value is set at the maximum number of digits needed; this means that each data element must have the same length (both 03 & 40 are two digits long).
4. X is set to the VAL of the slice of D\$ pointed to by N (note that 03 and 3b (b=blank) have the same VAL)
5. PRINTed
6. N STEPPed to the next element.

Depending on the particular data you are dealing with, you can establish an appropriate STEP length.

Next installment; I will cover variable length elements, and how to deal with READ's that apply to two variables.

reprinted from CATS
VI, 4 (July '83)

From L.I.S.T.ing, November 1985.

AERCO DISK DRIVE KIT!!!

by J. KUHN

SINC TIMES
7/86

Instruction on using MSCRIPT files with MTERM.

1) Save your MSCRIPT files to tape as normal. (You may find that for some systems you may have to enter a <CR> at regular intervals depending on the host system. By setting the line length (window) to one character less than your desired final form, you can go to the beginning of each line, press <ENTER> and easily add the required <CR>).

2) Remove your MSCRIPT tape, and then on a blank tape, start recording, and type:

```
SAVE "text"CODE 26710,20000
```

and then press <ENTER>. You may remove this tape as soon as the header has been recorded. Remove this tape.

3) Put your MSCRIPT tape back into the recorder and type:

```
LOAD "" <ENTER>.
```

When the header has passed (you will not see end program: or bytes: information) stop the tape immediately. Turn the right hub clockwise one half turn and then remove.

4) Play the dummy header tape and remove as soon as the header is read, and then put the MSCRIPT tape in and PLAY it. This should now be read in, and will stop with an error message (that is OK - it does not seem that there is a problem)

5) LOAD MTERM, but do not type PRINT USR 54016

6) POKE 23628,200

7) TYPE:print usr 54016. You now

have your file in the buffer.

MSCRIPT TAPE LOG Modified From SYNTAX Sept 84
Courtesy-Hampton Roads-May 86

Ever lost your cheat sheet that told you what you had named a document on an MSCRIPT tape and tried fruitlessly to reload it? (There is no way to load them back if you don't at least know what the first letter of the name is.) If so, there is still hope. The short program which follows is a modification of a standard header reader which appeared in the pages of the Spet '84 issue of the ill-fated SYNTAX modified to show the documents name and it's actual length. (The bytes used indication in MSCRIPT is not accurate.)

```
10 CLEAR 63999: FOR A=64000 TO 64052: READ B: POKE A,B: NEXT A
20 CLS: PRINT " LOAD TAPE AND PRESS "PLAY"*****
30 DATA 55,62,0,221,33,60,250,17,17,0,205,14,250,201,33,252,0,2
05,34,250,58,33,250,211,244,219,255
40 DATA 203,191,211,255,251,201,0,243,245,219,255,203,255,211,2
55,219,244,50,33,250,62,1,211,244,241,233
50 RANDOMIZE USR 64000
60 LET A=64060: LET B=PEEK A: LET S=B
70 PRINT "DOCUMENT: ";
80 FOR A=64060 TO 64070: LET B=PEEK A: PRINT CHR$ B:; NEXT A:
PRINT
90 LET B=PEEK (A+4)+256*PEEK (A+5): PRINT "DOC. LENGTH: ";B
100 GO TO 0050
110 SAVE "MSTAPECAT" LINE 0010
*****
```

Unclassified

For Sale: QL computer, SGX-80 thermal printer, 2 Cent. I/F, numerous programs. \$150 as is. 301 466-4770.

First things first. On the TS home front AERCO has done it again! Anyone who has ever dreamed of owning a disc drive for your TS 2868, but has been unable to afford it need wait no longer. Last year Matt Mathieson in our group purchased the Aerco FD-68 disk I/F for his 2868. After seeing how the system operates and the amount of disk space available (Formatted... 395K on DSDD or 31 files) and the speed of operation (approx. 32K bytes/ sec data transfer rate) I was set on purchasing this system. In February 1986, I called Til and Jerry to inquire on the purchase of the bare board and DOS eeprom so I could build the interface. To my unexpected surprise, they said sure with the stipulation that NO WARRANTY EXPRESSED OR IMPLIED CAN BE ASSUMED TO EXIST ON A HOME BUILT UNIT! ADDITIONALLY AERCO IS NOT LIABLE FOR ANY DAMAGE TO YOUR COMPUTER OR PERIPHERALS ON SUCH A UNIT. Well I must say that the above statement has been true on any kit I ever built, and I couldn't imagine anyone warranting a user built kit, so the next big question was how much? For \$50 + \$3 shipping and handling you will receive the following parts:

- 1) Bare double sided etched FD-68 board
- 2) DOS eeprom
- 3) 64 pin edge connector
- 4) 64 pin feed thru
- 5) ABS plastic board cover with tape
- 6) BOOT disk crammed full of utilities including a relocatable 80 column print driver and DEMO programs.
- 7) Instruction manual with INCORRECT schematic
- 8) Copy of FD-68 newsletter

The one catch to the deal is that you need to have contact with someone that has a working I/F in order to see the proper component layout and wiring that was changed from the engineering schematic included in the manual. Jumpers have been added in a few places and jumpers to the NMI circuit has been added as an integral part to the circuit. Additionally, the schematic shows some different component values than actually utilized. (The schematic shows various diodes on the board, when in reality there is not a single diode on the working unit.) Obviously as previously mentioned, AERCO will not warrant any board that someone else builds, but if you take care and build against a working unit it is really not too difficult. I would personally rate it as an intermediate difficulty level, and unless you have an intermediate level kit builder closeby, I would suggest that first time beginners work on another project first to sharpen up their soldering skills. (The last time I really built any major product, was back in the mid-sixties during the transistor era.) This makes an excellent project for a user group to tackle at their kit building meetings! I bet you want to know if it works...well let me say it didn't at first but with a little troubleshooting I am at this moment using Tasword on Aerco disk with an AERCO centronics I/F running my 80 column printer. Since I first brought my unit on line in February, seven other club members have built their units and two more members just received their boards to begin building their FD-68s.

I will admit that not one person out of the seven had their board come up running on the first try but the only major problem with any of the boards was due to purchasing faulty chips. SUGGESTION! (Socket every chip and if more than one person is building the unit swap chips until one working unit is up and running. This unit can be used to troubleshoot other chips.) All chips, caps, xtal, chip sockets, disk cableing, extra card connectors, & resistors can be found between Jameco and B&G Micro at reduced prices. (Remember at the reduced prices you are receiving batch untested chips but with the low prices you can almost afford to buy a second set and still get by cheaper than purchasing all tested chips!) Other club members have also said they will be jumping on the Aerco bandwagon. Maybe next time with AERCO's permission I will be able to list the needed mods to their circuit board. AERCO is still implementing commands to their DOS so new DOS eeprom upgrades are made available for \$5 exchange. With inexpensive components, power supplies, and disk drives available, a dual 5.25" DSDD system can be up and running for under \$200 if you really shop around! For those of you that do not desire to take the time to build the I/F (an AERCO earns their labor in building it) or want a factory unit that has a factory warranty with it, the I/F can be purchased for \$199 + S&H. Look in the Computer Shopper for great buys on used disk drives and power supplies. I purchased two 5.25 DSDD drives and a power supply for under \$90! If everything above is not enough to get you to put your check in the mail, well I have saved the best for last. In the past several months AERCO has introduced 80 column CPM/ RPM 2.2 for the TS 2068!!!! Yes it does exist and it is software generated 80 column!!! I have seen it as several of the above users have purchased it and are up and running CPM/ RPM. Best news of all is that it is only \$25 and comes packed with CPM programs including an 80 column CPM modem program that has been adapted for use with the TS 2050 modem boards. (Remember the \$10 boards?). A new Eeprom out now allows you to purchase your CP/M programs in MORROW MD-3 format and read the programs directly into your machine. This opens the door to literally thousands of programs you have always wished you could run on you TS machine! Eg. Wordstar, Spellstar, Calcstar, bulletin board, and zillions of Public domain programs. There is even a program being produced that can be loaded into a MD-3 compatible machine that will allow KAYPRO and OSBOURNE CP/M disks to be loaded! If this will work on the TS 2068 is yet to be seen, but I will keep you posted. Here are a few of the FD-68's features:

- 1) 32K bytes/ sec data transfer
- 2) 64K additional bank of memory (expandable to 256K)
- 3) RGB I/F on board (standard equipment)
- 4) RPM (runs CPM 2.2) available
- 5) Auto boot is standard
- 6) will run 3", 3.5", 5.25", or 8" drives when specified
- 7) dock bank can be enabled in 8K chunks
- 8) 64 pin feed thru bus is standard
- 9) AERCO CPI or serial I/F compatible
- 10) TS 2050 Modem compatible
- 11) TS 2040 printer Compatible

Soon LROS compatibility will be implemented thus allowing SPECTRUM programs to be run by putting the SPECTRUM ROM in the dock bank and at the same time have all AERCO DOS commands available for use. This opens the possibility of re-writing the SPECTRUM tape SAVE and LOAD ROM calls to fit the AERCO disk system, meaning all SPECTRUM software that has file saving or loading facilities would run to the disk without modification. Currently I am running SPECTRUM out of the dock bank but not in the LROS mode which only means for now that when in the SPECTRUM mode I do not have the Disk available, but the sound and RGB sure make the Spectrum programs shine! I have also seen OS-6 running out of Dock RAM and a version of Tasword that allows the user to have both Home and Dock RAM running different data files simultaneously. I have also heard through the grapevine that Aerco may soon upgrade the disk file capacity from 31 programs to either 64 or 128 programs per disk! Dollar for dollar there is not another disk system that even comes close to the system that Aerco offers bar none! Some may have a more sophisticated DOS or some might be a bit faster, but none are moving forward as fast or more TS user /hacker (which we all seem to be) friendly than the AERCO system. [Aerco will even sell you the source code for their DOS for a nominal fee] Well the possibilities are endless so for further info write AERCO @ 80180, 18093, Austin, TX 78760. Phone # (512) 451-5874.

Sinclair Computerfest-II Coming Next May

TIME DESIGNS Magazine, in its July/August issue, reported that plans are underway for the Second Annual Mid-West Timex/Sinclair Computer-fest, to be held the first weekend in May in Indianapolis, Indiana.

The Cincinnati version of "hard core" (computer-fest organizers) which staged the inaugural event last spring are busy making plans for the 1987 "conclave" of dealers, exhibitors, speakers, and Sinclair fans from the midwest as well as just about everywhere else you can imagine.

Leading next year's event is Frank Davis of Peru, Indiana, who will be assisted and advised by the dozen or so Cincinnati catalysts who staged the initial Computer-fest in suburban Sharonville, Ohio last May

Indianapolis is some 49 miles farther from Washington, D.C. than Cincinnati, but still reachable for us via the interstates.

Also being proposed are Timex/Sinclair conferences in San Francisco and New York, possibly this coming fall.

We will endeavor to keep you informed about all these happenings.

Watch this space!

HD

A Self-Defeating Victory

ROBERT J. SAMUELSON

Wash. Post 8/13/86

Anyone who worries about the future of American industry must reserve a special concern for semiconductor manufacturers—the makers of tiny electronic “chips.” The chip industry has strategic importance, in both economic and military terms, and the challenge from Japan surely must give the most ardent free trader pause. But these patriotic anxieties cannot obscure the reality of the recent U.S.-Japanese semiconductor agreement: It is massive protectionism.

Ponder its scope. It attempts to prop up and regulate chip prices not only in the United States and Japan, but also in the rest of the world. It tries to force Japan to more than double its imports of American chips by 1991. At best, the agreement will provide temporary relief to a vital industry and defuse political pressures for broader protectionism. At worst, it will create a crude global cartel that, by giving the chip industry a false sense of security, actually will make its problems worse.

No one doubts the distress of

pressure its chip users to buy 20 percent of their supplies from U.S. companies. By 1991, that could mean \$4 billion in sales, up from 1985's \$800 million.

As for prices, Japanese exporters will submit price and cost information to the Ministry of International Trade and Industry, which would prevent Japanese chips from being “dumped” at unfair prices abroad. The price controls are intended to raise prices above the low levels caused by today's overcapacity. In turn, higher prices would help U.S. companies. “Observers can [now] make a long-term case that the U.S. semiconductor industry will be able to grow and finance its growth,” writes Mona Eraiba, an industry analyst at Salomon Bros. Inc.

Well, maybe.

But other industries—steel, autos, textiles—have followed the protectionist path without finding happiness. In steel, protectionism diverted the industry from dealing with its basic problems: poor management and high labor costs. In textiles, imposing import limits on one country encouraged more imports from other countries. The auto companies benefited from Japan's “voluntary” limits on car exports. But the quotas prompted the Japanese to export bigger, higher-priced models, easing the entry of the Koreans and Yugoslavs into the U.S. small-car market.

There are disturbing parallels in semiconductors. If chip prices are unrealistically high in Japan, will production shift elsewhere? Sanyo Electric Co., Japan's seventh-largest chip maker, already plans to move 70 percent of its chip production overseas by 1990. Even now, Korean companies are rapidly increasing their chip sales. Some analysts argue that smaller U.S. chip companies need to merge to compete with larger, better-financed Japanese rivals. If the chips agreement provides temporary relief, will it deter beneficial mergers?

The agreement's most defensible part is Japan's commitment to buy more U.S. chips. In theory, Japan abandoned formal import restrictions on chips in 1975. But the U.S. market share never

the U.S. companies. Computers are big users of chips, and the computer industry slump has hurt badly. Analyst Michael Kubiak of Kidder, Peabody & Co. estimates that half or more of the semiconductor industry's global capacity is idle. Intense competition from Japan has made matters worse for U.S. companies. As recently as 1974, eight of the top 10 chip companies in the world were American; in 1985, Japanese firms held five of the top 10 places. American companies still control more than half the

world market, but the Japanese have been steadily gaining and have about 40 percent.

Last year, most U.S. semiconductor companies suffered large losses, and the U.S.-Japan agreement aims to provide some relief. The sales potential in Japan seems huge. In 1985, U.S. companies had about 10 percent of Japan's \$8 billion chip market. But that market—propelled by Japan's consumer electronics industry—could reach \$20 billion by 1991. Japan apparently is committed to

rose. How come? The stability buttressed the U.S. claim of discrimination. By contrast, the agreement's price controls are economically absurd. Preventing “dumping” sounds innocent, but Japan was forced to adopt a U.S. dumping standard that ignores economic reality. It requires producers to set prices high enough to cover all costs, including an 8 percent profit. Any business would like that guarantee. But in competitive markets, no one is assured a profit. Overcapacity typically means losses.

What is truly radical is the American insistence that this same unrealistic standard be applied to Japanese sales to other countries. In effect, the United States is promoting worldwide price regulation of electronic chips, just as the Organization of Petroleum Exporting Countries promotes worldwide price regulation of oil. Even if the effort at price control fails (as OPEC's has), embracing it undermines the United States' moral authority to resist protectionism elsewhere. The more we protect our industries, the less other nations will listen to our pleas that they stop protecting theirs.

Our trade is now increasingly “managed” under specific agreements regulating trade volumes or prices. The theory of managed trade is to balance the demands of domestic industries for stability with the reality that, as a nation, we cannot forsake international markets. But the gains of managed trade are mostly illusory. What we call “trade problems” flow from unstable global economic conditions—particularly now, slow worldwide economic growth—or basic changes in individual industries. More managed trade neither has reduced our trade deficit nor cured the problems of distressed industries such as steel and textiles.

Bear that in mind. Without stronger global economic growth—and higher computer sales—the semiconductor industry isn't going to get better. And if it doesn't, what has been sold as a “temporary” agreement with Japan may become a permanent part of the self-defeating drift toward managed trade.

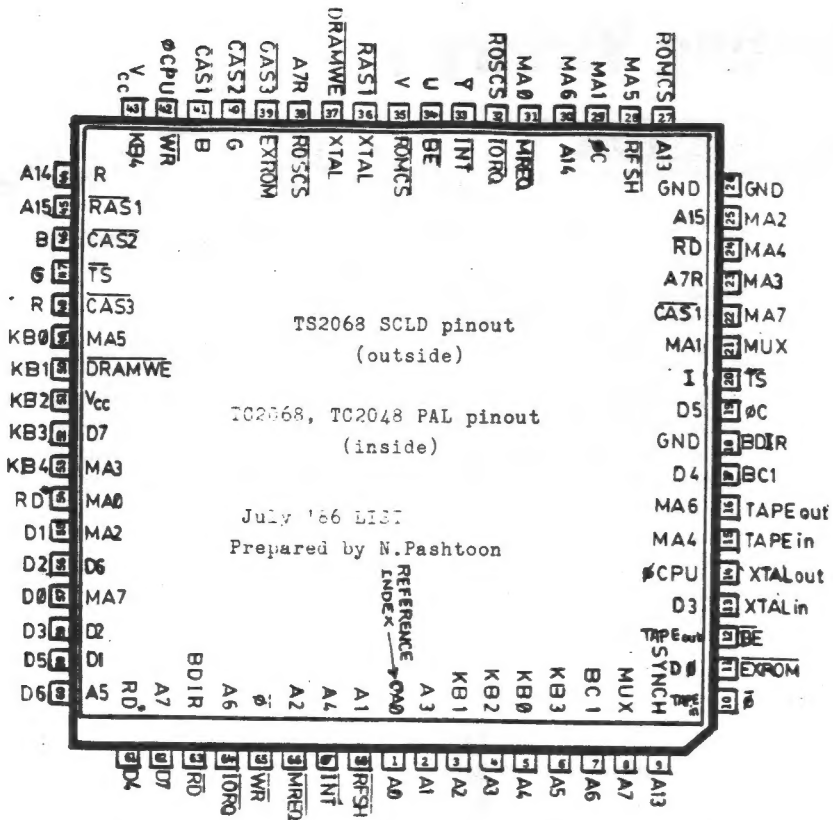


Fig.5: Pinout for TS2068 SCLD(outer designations), and TC2068/TC2048 PAL(outer designations).

This pinout was developed by Nazir Pashtoon of the L.I.S.T. group. It was generated by tracing the leads on the circuit board of the TC 2068 (!!!). I suspect that this "second generation" 2068 was already on the runway when Timex US crashed in its chips. The common chip we see in our TS2068's is marked TS 2000, F808979, while the Portugese machine's chip is marked TS 2068, F819585. Hmm.... Had things gone as planned, US machines would have been issued with the improved PAL chip. Thanks for all the hard work, Nazir! MF

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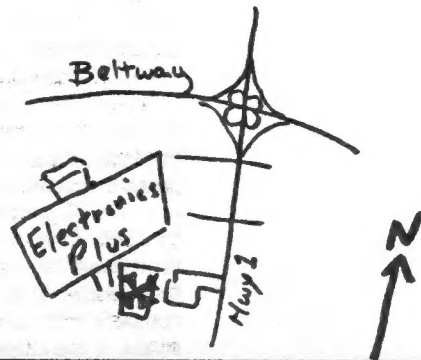
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Can Software Firms Be Held Responsible When a Program Makes a Costly Error?

Wall Street Journal, p.17, 8/4/86

Early last year James A. Cummings Inc. used a personal computer to prepare a construction bid for a Miami office-building complex. But soon after the bid was accepted, the Fort Lauderdale firm realized that its price didn't include \$254,000 for general costs. Cummings blamed the error on the program it had used, and last October filed suit in federal court in Miami against the software maker, Lotus Development Corp. The suit contends that Lotus's Symphony business program didn't properly add the general expenses, resulting in a loss in completing the contract.

Lotus, based in Cambridge, Mass., disputes that contention, arguing that Cummings made the error. The case, however, has had a chilling effect on the software industry. For the first time, industry officials say, a case may go to court that could determine if makers of software for personal computers are liable for damages if the software fails.

Software makers are particularly concerned about paying for damages resulting from faulty software - rather than just replacing the software. Such "consequential" damages have been awarded in suits involving larger computers. But the responsibility for the performance of personal-computer software is less clear. Most software

packages come with "as-is" warranties which don't even provide for the correction of flaws in the software. Software makers contend that they can't be held responsible for a user's losing money because of a glitch in their product. Moreover, software makers contend that users should double-check work done using a software package.

In the case of Cummings, the construction firm prepared the bid on the computer by calculating all costs except for general expenses. When the preparer realized he had omitted the cost figures, he inserted them as the top line of the column of figures. The figure appeared on the screen, but was never added to the bid amount by the program. Some experienced software users blame such problems on the user, noting that novice spreadsheet users often forget to rewrite formulas in such instances, inserting a new top line without rewriting the formula to tell the spreadsheet that the number should be added.

Meanwhile, at least one federal agency is making certain software makers responsible for tasks performed with their products. The Internal Revenue Service in December ruled that if software provides "substantive instructions" on filing tax returns, the program developer is liable as a tax preparer. (Now) software makers worry that a legal ruling establishing the right of users to consequential damages could drive some makers out of business and prevent others from entering the business. In particular, small companies, responsible for much of the industry's innovation, would drop out, unable to afford to defend against lawsuits or pay liability insurance.

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Ham Radio Network Information
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Meetings are held on the second Saturday of each month at 2 P.M. in the large meeting room of the New Carrollton Branch Public Library.

301#922-0767

The official contact person for CATS is JULES GESANG!

CATS is a non-profit special interest organization dedicated to serving the interests of those who own, use, or are interested in learning more about the Timex/Sinclair family of personal computers.

Bladensburg, MD 20710

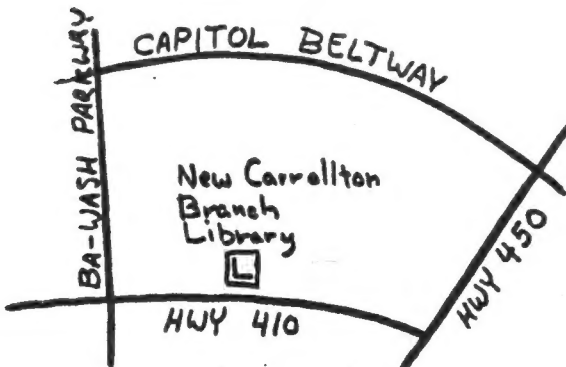
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COME TO OUR MEETING!

The next meeting of C.A.T.S. will be held on:
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